

Study of effect of Sepsis on Platelet Count and their indices – Mean Platelet Volume and Platelet Distribution Width and their prognostic significance and correlation with C Reactive Protein

Abstract

Background:

Sepsis is a major disease which affects almost all organs and systems in millions of people around the world.

Objectives:

To study the effect of sepsis on platelet count and their indices (Mean Platelet Volume (MPV) and Platelet Distribution Width (PDW) and their significance as prognostic markers in sepsis and correlation with C Reactive Protein (CRP)

Methods:

Patients with criteria for sepsis were selected and subjected to blood tests on admission , after 24 hrs of admission and after 72 hrs of admission.

Results:

100 patients were included in the study. The relationship between MPV and PDW was linear With p value 0.000. Relation between MPV and CRP had p value of 0.034. MPV, PDW and CRP has a positive correlation with one

another. Patients with higher MPV, PDW and CRP had higher mortality rates when the values were increased.

Conclusion:

Increased MPV and PDW have higher death rates among septic patients.

Abnormally low platelet counts, high MPV and high PDW are associated with more severe illness. MPV can be used in addition to CRP at both diagnosis and follow up of septic patients and their response to antimicrobial therapy.

Keywords:

Sepsis, thrombocytopenia, Mean Platelet Volume, Platelet Distribution Width, C Reactive Protein.